UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,269	10/13/2003	Georg Mayer	NOKM.064PA	1737

40581 7590 06/02/2005

CRAWFORD MAUNU PLLC
1270 NORTHLAND DRIVE, SUITE 390
ST. PAUL, MN 55120

EXAMINER	
YANG, LINA	
ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/684,269	Applicant(s) MAYER ET AL.	
	Examiner Lina Yang	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,29-43* is/are rejected.

7)☒ Claim(s) *15-28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/12/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 9 is rejected under 35 U.S.C. 112, second paragraph.

Claim 9 recites: "The method as in claim 8, further comprising issuing a session termination message at the remote session endpoint towards at least one other session endpoint in response to receiving the session release notification". It's unclear that how can a remote session endpoint issuing a session termination message after receiving the session release notification towards the other session endpoint, since according to claim 8 and it's dependent claim 1, each of the network entities will terminate the communication session after receiving the session release notification. Clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-14, 29-38 and 30-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Bos et al. (U. S. Patent Application No. 20040008669 A1).

Regarding claim 1, Bos discloses a method for releasing a communication session involving network entities including session endpoints (fig. 2 A-multimedia terminal 1 and H-terminating unit 4; [0066]) and intermediary network entities (fig. 2; B-P-CSCF2; C- S-CSCF 2; D- Server 2; etc.; [0066]), comprising: subscribing one or more of the network entities as subscribers (fig. 2; B-P-CSCF2; C- S-CSCF 2; [0066]) to one or more of the intermediary network entities serving as notifiers (fig. 2; D-server 2; [0066] and [0071]); releasing the communication session at a first one of notifiers initiating a session release notification via a signaling protocol from the first notifier to its respective subscriber (fig. 2; step 134; [0098]); logically advancing the session release notification towards a remote one of the session endpoints via the intermediary network entities (fig. 2; steps 134-136; [0098] and [101]); and terminating the communication session at each of the network entities receiving the session release notification (fig. 2; steps 137-139; [0098] and [101]).

Regarding claim 2, Bos further discloses the signaling protocol comprises a Session Initiation Protocol (SIP) (fig. 2; steps are SIP messages), and wherein the

intermediary network entities comprise Call Session Control Functions (CSCFs) in an EP Multimedia core network Subsystem (IMS) (fig. 2; B-P-CSCF2; C- S-CSCF 2 and [0066]).

Regarding claim 3, Bos further discloses that initiating a session release notification comprises generating the session release notification in conformance with the signaling protocol (fig. 2; step 134; [0098]), and wherein logically advancing the session release notification comprises passing the session release notification to the remote session endpoint by way of the intermediary network entities (fig. 2; steps 134-136; [0098] and [101]).

Regarding claim 4, Bos further discloses the first notifier comprises a Proxy Call Session Control Function (P-CSCF) in an IP Multimedia core network Subsystem (IMS) ([0050] and [0071]).

Regarding claim 5, Bos further discloses that passing the session release notification to the remote session endpoint by way of the intermediary network entities comprises forwarding the session release notification from one intermediary network entity to another intermediary network entity until reaching the remote session endpoint (fig. 2; steps 134-136; [0098] and [101]).

Regarding claim 6, Bos further discloses that initiating a session release notification comprises generating a first session release notification in conformance with the signaling protocol, and wherein logically advancing the session release notification comprises: sending the first session release notification to the subscriber of the first notifier, wherein the subscriber of the first notifier serves as a second notifier to the remote one of the session endpoints; and generating a second session release notification at the second notifier, and passing the second session release notification to the remote session endpoint by way of the intermediary network entities (fig. 2; steps 134-136; [0098] and [101]).

Regarding claim 7, Bos further discloses that the first notifier comprises a Serving Call Session Control Function (S-CSCF) (fig. 2; D-server 2; [0050] and [0066]), and the second notifier comprises a Proxy Call Session Control Function (P-CSCF) (fig. 2; B-P=CSCF 2; [0066]), in an IP Multimedia core network Subsystem (IMS).

Regarding claim 8, Bos further discloses that terminating the communication session at each of the network entities comprises treating the session release notification as a session termination message in conformance with the signaling protocol at each of the network entities receiving the session release notification (SIP "BYE" is a termination message).

Regarding claim 10, Bos further discloses that the subscribing one or more of the network entities as subscribers comprises subscribing in conformance with the signaling protocol (fig. 2; steps 107-109 are SIPs).

Regarding claim 11, Bos further discloses that the subscribing in conformance with the signaling protocol comprises subscribing via a Session Initiation Protocol (SIP) (fig. 2; steps 107-109 are SIPs).

Regarding claim 12, Bos further discloses that the signaling protocol comprises an end-to-end signaling protocol (SIP is an end-to-end signaling protocol).

Regarding claim 13, Bos further discloses that the end-to-end signaling protocol comprises a Session Initiation Protocol (SIP) (fig. 2 all steps are SIP), and wherein the intermediary network entities comprise Call Session Control Functions (CSCFs) (fig. 2; B, C and D are all comprising CSCFs) and in an EP Multimedia core network Subsystem (IMS).

Regarding claim 14, Bos further discloses that the at least one of the network entities serves as both a subscriber and a notifier (example, B-P-CSCF in fig. 2 is both an subscriber and a notifier).

Regarding claim 29, Bos discloses a Serving Call Session Control Function (S-CSCF) operable in an IP Multimedia core network Subsystem (IMS), wherein the IMS includes at least a Proxy Call Session Control Function (P-CSCF) coupled to communicate with the S-CSCF, the S-CSCF comprising: a processor (all CSCF in fig. 1 and 2 has a processor); a release recognition module operable with the processor to determine whether a session should be released at the S-CSCF (inherent; according to the IETF specification all CSCFs has the ability to determine whether a session should be released); a subscription management module operable with the processor to receive a subscription to a session release notification from the P-CSCF (receiver), wherein the session release notification includes a directive for the P-CSCF to release the session at the P-CSCF (inherent; according to the IETF specification all CSCFs have the ability to release a session); and a notification module operable with the processor to generate the session release notification for transmission to the P-CSCF in response to the session being released at the S-CSCF (transmitter).

Regarding claim 30, Bos further discloses that the S-CSCF further comprising a notification management module operable with the processor to receive second session release notifications originating at other S-CSCFs or P-CSCFs associated with the session, to parse the second session release notifications, and to identify an indication to release the session at the S-CSCF (fig. 2, and steps 135 and 136).

Regarding claim 31, Bos further discloses that the S-CSCF further comprising a session termination module operable with the processor to receive the indication to release the session at the S-CSCF, and in response, to release the session at the S-CSCF (inherent; according to the IETF specification all CSCFs has the ability to release a session).

Regarding claim 32, Bos further discloses that the session release notification further includes a second directive for the P-CSCF to terminate the subscription (inherent; according to the IETF specification all CSCFs have the ability to release a session).

Regarding claim 33, Bos discloses a Proxy Call Session Control Functions (P-CSCF) operable in an IP Multimedia core network Subsystem (IMS), wherein the IMS includes at least a Serving Call Session Control Functions (S-CSCF) coupled to communicate with the P-CSCF, the P-CSCF comprising: a processor (all CSCF in fig. 1 and 2 has a processor); a release recognition module operable with the processor to determine whether a session should be released at the P-CSCF (inherent; according to the IETF specification all CSCFs has the ability to determine whether a session should be released); a subscription management module operable with the processor to receive a subscription to a session release notification from a User Equipment (UE) (receiver), wherein the session release notification includes a directive for the UE to release the session at the UE (inherent; according to the IETF specification all CSCFs

and Ues have the ability to release a session); and a notification module operable with the processor to generate the session release notification for transmission to the UE in response to the session being released at the P-CSCF (transmitter).

Regarding claim 34, Bos further discloses that the P-CSCF further comprising a subscription module operable with the processor to issue to the S-CSCF a subscription request for session release notifications originating at the S-CSCF (inherent; according to the IETF specification all CSCFs has the ability to release a session).

Regarding claim 35, Bos further discloses that the P-CSCF further comprising a notification management module operable with the processor to receive and parse the session release notifications originating at the S-CSCF, and to identify an indication to release the session at the P-CSCF (fig. 2, steps 135 and 136).

Regarding claim 36, Bos further discloses that the P-CSCF further comprising a session termination module operable with the processor to receive the indication to release the session at the P-CSCF, and in response, to release the session at the P-CSCF (inherent; according to the IETF specification all CSCFs has the ability to release a session).

Regarding claim 37, Bos further discloses that the session release notification further includes a second directive for the UE to terminate the subscription (inherent; according to the IETF specification all CSCFs have the ability to release a session).

Regarding claim 38, Bos discloses a system for communicating over an IP Multimedia core network Subsystem (IMS), comprising: first and second User Equipments (UE) configured to engage in a dialog over the IMS (fig. 2; A-multimedia terminal and H-termial 4); a plurality of Call Session Control Functions (CSCF) associated with the IMS (fig. 2, B-G), comprising first and second Serving CSCFs (S-CSCF) (C: S-CSCF 2 and F: S-CSCF 3) and first and second Proxy CSCFs (P-CSCF) (B: P-CSCF 2 and G: P-CSCF 3); wherein: the first and second P-CSCFs serve as first points of communication within the IMS for the first and second UEs respectively (see fig. 2), and are coupled to communicate with at least the first and second S-CSCFs respectively (fig. 2); the first and second P-CSCFs are configured to subscribe to the first and second S-CSCFs respectively (fig. 2), and the first and second UEs are configured to subscribe to the second and first P-CSCFs respectively(fig. 2); each of the CSCFs comprise a release recognition module configured to identify a release of the dialog, and a notification module to generate a release notification for transmission towards its respective subscriber (inherent; according to the IETF specification all CSCFs have the ability to release a session); and each of the UEs and CSCFs comprise a session release module configured to release the dialog in response to

receiving the release notification (inherent; according to the IETF specification all UEs and CSCFs have the ability to release a session).

Regarding claim 40, Bos discloses that a first network entity operable in a signaling network (B: P-CSCF2 in fig. 2), wherein the signaling network includes at least a second network entity (C: S-CSCF2 in fig. 2) coupled to communicate with the first network entity, the first network entity comprising: a processor (all CSCF in fig. 1 and 2 has a processor); a release recognition module operable with the processor to determine whether a session should be released at the first network entity (inherent; according to the IETF specification all CSCFs has the ability to determine whether a session should be released); a subscription management module operable with the processor to receive a subscription to a session release notification from the second network entity (receiver), wherein the session release notification includes a directive for the second network entity to release the session at the second network entity (inherent; according to the IETF specification all CSCFs have the ability to release a session); and a notification module operable with the processor to generate the session release notification for transmission to the second network entity in response to the session being released at the first network entity (transmitter).

3. Claims 41-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Gabor et al. (U. S. Patent Application No. US 20040203710 A1).

Regarding claim 41, Gabor teaches a computer-readable medium having instructions stored thereon which are executable by a Call Session Control Function (CSCF) computer system for releasing a dialog established over an IP Multimedia core network Subsystem (IMS), the instructions executable by the CSCF computer system for performing steps comprising: determining whether a session should be released at the CSCF (fig. 3, step 5'6 and 5'7); accepting a subscription to a session release notification from a User Equipment (UE) (inherent in step 5'3), wherein the session release notification includes a directive for the UE to release the session at the UE (inherent; according to the IETF specification all UEs and CSCFs have the ability to release a session); and generating the session release notification for transmission to the UE in response to the session being released at the CSCF (fig. 3 steps 5'8 and 5'11). .

Regarding claim 42, Gabor further teaches that the instructions executable by the CSCF computer system further comprises instructions for performing steps comprising: parsing second session release notifications received from a second CSCF associated with the session, and in response identifying an indication to release the session at the CSCF; and releasing the session at the CSCF if the indication to release the session at the CSCF is identified (fig. 2, step 5'8).

Regarding claim 43, Gabor further teaches that the instructions executable by the CSCF computer system further comprises instructions for performing steps comprising

issuing a subscription request to a second CSCF associated with the session, wherein the subscription request comprises a request for session release notifications originating at the second CSCF associated with the session (fig. 2, step 5'8)..

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 39 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Bos et al. (U. S. Patent Application No. 20040008669 A1) in view of Gabor et al. (U. S. Patent Application No. US 20040203710 A1).

Regarding claim 39, Bos differs from the claimed invention in that Bos does not specifically teaches that each of the first and second UEs is further configured to initiate a second release notification for transmission towards the other one of the first and second UEs to release the dialog, in response to receiving the release notification originating at one of the CSCFs. However, it is well known in the art that both the caller and callee can end a session by executing a BYE message. For example, Gabor teaches that each of the first and second UEs is further configured to initiate a second release notification for transmission towards the other one of the first and second UEs to release the dialog ([0031]). Therefore, it would have been obvious for one of

ordinary skill in the art at the time when the invention was made to clearly incorporate that each of the first and second UEs is further configured to initiate a second release notification for transmission towards the other one of the first and second UEs to release the dialog, in response to receiving the release notification originating at one of the CSCFs, as taught by Gabor et al. in the assembly of Bos in order to insure the termination of the session.

Allowable Subject Matter

5. Claims 15-28 are allowable.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 15-28 are allowable since prior art of record, dose not teach or suggest, in addition to other limitations recited in claims 15-28, a method for releasing a dialog established over an IP Multimedia core network Subsystem (IMS) that supports services via the Session Initiation Protocol (SIP), wherein the IMS includes a plurality of Call Session Control Functions (CSCFs) including at least a Proxy CSCF (P-CSCF) and a Serving CSCF (S-CSCF) associated with each User Equipment (UE) involved in the dialog, the method comprising: initiating the dialog from one UE towards another UE; subscribing each P-CSCF associated with the dialog to its respective S-CSCF, and subscribing each of the UEs to the P-CSCF associated with the other UE; generating a SIP session release notification at one of the CSCFs associated with a

release of the dialog and transmitting the SIP session release notification towards its subscriber; and releasing a dialog state at the remaining CSCFs as a result of the generation and transmission of the SIP session release notification.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Widegren et al. (U. S. Patent Application No. US 20020036983 A1) teaches a method of filtering and gating data flow in a QoS connection between a remote host and user equipment in a packet data network using policy control mechanisms includes a remote host initiating an application in an application server and a corresponding session between the remote host and the user equipment ("UE") via the application server.

Bajko et al. (U. S. Patent Application No. US 20040176091 A1) teaches the subscriber registrations in a mobile communication system.

Huotari et al. (U. S. Patent Application No. US 20040184452 A1) teaches a Method, system and network device for routing a message to a temporarily unavailable network user.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lina Yang whose telephone number is (571)272-3151. The examiner can normally be reached on 7:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LY

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600